

Scenario for the pressurization of the LH2 absorber window

The measurement will be performed with chosen methods:

- voltage measurement,
- resistance (2wires or 4 wires),

and the acquisition :

1. Keithley (static measurements),
2. ADC card (dynamic measurements),

In any case, you should registered more than 10 value per pressure conditions.

Steps:

- 1- Cycling: measurement of the strains and displacements for :
 - 0 PSIG
 - 2.90 PSIG
 - 5.80 PSIG
 - 0 PSIG(Repeat 3 time)
- 2- Measurements of the strains and displacements for :
 - From 0 to 7.25 PSIG with increments of 1.45 PSIG
 - From 7.25 PSIG to the rupture with increments of 1.45/2 PSIG

If you want to stay in the elastic mode of the aluminum window, then don't go further than 20 PSIG.

If you refer to

http://www-bdcryo.fnal.gov/darve/mu_cool/pressuretest/Instrumentation/DAQ_organigram.doc
then the pressure P1 max = 7.25 PSIG

The following table can be filled with the preliminary data:

	Load (PSIg)	(Mpa)	Voltage	strain radial	UY	time	Comment
	0.00	0.000					
1	1.45	0.010					
2	2.90	0.020					
3	4.35	0.030					
4	5.80	0.040					
5	7.25	0.050					
6	7.98	0.055					
7	8.70	0.060					
8	9.43	0.065					
9	10.15	0.070					
10	10.88	0.075					
11	11.60	0.080					
12	12.33	0.085					
13	13.05	0.090					
14	13.78	0.095					
15	14.50	0.100					
16	15.23	0.105					
17	15.95	0.110					
18	16.68	0.115					
19	17.40	0.120					
20	18.13	0.125					
21	18.85	0.130					
22	19.58	0.135					
23	20.30	0.140					
24	21.03	0.145					
25	21.75	0.150					
26	22.48	0.155					
27	23.20	0.160					
28	23.93	0.165					
29	24.65	0.170					
30	25.38	0.175					
31	26.10	0.180					
32	26.83	0.185					
33	27.55	0.190					
34	28.28	0.195					
35	29.00	0.200					
36	29.73	0.205					
37	30.45	0.210					
38	31.18	0.215					
39	31.90	0.220					
40	32.63	0.225					